

## CLAIMS

Sub C1  
1. A flexible matrix array device comprising a thin film matrix circuit carried on the surface of a flexible substrate which matrix circuit includes semiconductor devices arranged in a regular array and occupying respective, discrete, areas of the substrate, wherein selected regions of the substrate away from the areas occupied by the semiconductor devices comprise areas of weakness at which flexing of the substrate occurs more readily.

2. A curved matrix array device comprising a thin film matrix circuit carried on the surface of a substrate which matrix circuit includes semiconductor devices arranged in a regular array and occupying respective, discrete, areas of the substrate, wherein the substrate comprises areas of weakness at selected regions away from the semiconductor devices and the curvature of the device is accommodated substantially by deformation at the substrate at those regions.

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3. A device according to Claim 1 or Claim 2, wherein the areas of weakness comprise locally thinner regions of the substrate.

Sub C3  
4. A device according to Claim 3, wherein the locally thinner regions are formed by selective etching of the substrate.

5. A device according to Claim 3, wherein the substrate comprises a laminated structure with at least two layers and in which one layer is patterned to form the locally thinner regions.

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6. A device according to Claim 1 or Claim 2, wherein the areas of weakness comprise areas of the substrate at which the material of the substrate is rendered less stiff compared with the areas of the substrate occupied by the semiconductor devices.

7. A device according to any one of Claims 1 to 6, wherein the substrate comprises polymer material.

q2  
8. A device according to any one of Claims 1 to 7, wherein the areas of weakness extend as lines of weakness between the areas of the substrate carrying the semiconductor devices.

Sub C5  
9. A device according to Claim 8, wherein the semiconductor devices are arranged in an array of rows and columns and wherein the areas of weakness comprise lines of weakness extending across the array between rows and/or columns of semiconductor devices.

10. A device according to any one of Claims 1 to 7, wherein the discrete areas of the substrate carrying the semiconductor devices are thicker than the remaining areas of substrate.

q3  
11. A device according to any one of the preceding claims, wherein the semiconductor devices each comprise a semiconductor film formed into an island.

12. A device according to any one of the preceding claims, wherein the semiconductor devices comprises thin film transistors.

13. A device according to any one of the preceding claims, wherein the device comprises an active matrix display devices having an array of display pixels and in which each semiconductor device is connected to a respective pixel electrode carried on the substrate.

Sub C9  
14. A device according to Claim 13, wherein the device comprises an active matrix liquid crystal display device which includes a further flexible substrate mounted to the substrate carrying the matrix circuit with liquid crystal material disposed between the substrates.

Sub  
C10

15. A device according to Claim 14, wherein the further substrate has lines of weakness formed therein.

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	